

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) Electrical power transmission network, comprising:
[[-]] interconnecting nodes; ~~of the network and~~
connecting lines connected between [[the]] said nodes;
[[-]] a coaxial superconducting cable with which is associated a first reactance,
said coaxial superconducting cable being connected between two of said nodes of the
said network; and

~~characterized in that it also comprises~~ at least one inductive element, with which
is associated a second reactance, said at least one inductive element being connected
in series with [[the]] said coaxial superconducting cable.

2. (currently amended) Network according to Claim 1, ~~characterized in~~
~~that wherein~~ the sum of [[the]] said first reactance and [[the]] said second reactance is
substantially equal to a third reactance whose value is substantially equal to the
reactance of a conventional cable suitable for such a connection.

3. (currently amended) Network according to Claim 1, ~~characterized in~~
~~that the wherein~~ said at least one inductive element comprises a superconducting cable.

4. (currently amended) Network according to Claim 1, ~~characterized in~~
~~that the wherein~~ said at least one inductive element comprises a core.

5. (currently amended) Network according to Claim 1, ~~characterized in~~
~~that the wherein~~ said at least one inductive element is located at one end of [[the]] said
coaxial superconducting cable.

6. (currently amended) Network according to Claim 1, ~~characterized in that the~~ wherein said at least one ~~inductance~~ inductive element comprises two parts, of which one is located at one end of ~~[[the]]~~ said superconducting cable and the other is located at the opposite end thereof.

7. (currently amended) Network according to Claim 1, ~~characterized in that the~~ wherein said coaxial superconducting cable ~~is of the multiple-phase type~~ has multiple phases.

8. (currently amended) Network according to Claim 7, ~~characterized in that it~~ wherein the network comprises at least one inductive element connected in series with each phase of ~~[[the]]~~ said coaxial superconducting cable.

9. (currently amended) Network according to Claim 1, ~~characterized in that the~~ wherein said coaxial superconducting cable comprises a support of conducting material.

10. (currently amended) Network according to Claim 1, ~~characterized in that the~~ wherein said coaxial superconducting cable comprises a support of composite material.

11. (withdrawn - currently amended) Method for installing in an electrical power transmission system a connection using a coaxial superconducting cable, ~~characterized in that it comprises the following steps~~ comprising:

[[-]] determining ~~[[the]]~~ a reactance of a conventional cable suitable for ~~[[the]]~~ said connection;

[[-]] installing ~~[[the]]~~ said coaxial superconducting cable having a predetermined reactance; and

[[-]] increasing the reactance of [[the]] said coaxial superconducting cable, in such a way that [[the]] said reactance of [[the]] said superconducting cable is substantially equal to the reactance of [[the]] said conventional cable.

12. (withdrawn - currently amended) Method according to Claim 11, ~~characterized in that~~ wherein the step of increasing the reactance of [[the]] said coaxial superconducting cable comprises [[the]] a step of connecting an inductive element in series with [[the]] said coaxial superconducting cable.

13. (withdrawn - currently amended) Method according to Claim 12, ~~characterized in that the~~ wherein said inductive element is a superconductor.

14. (withdrawn - currently amended) Method according to Claim 11, ~~characterized in that it comprises the~~ further comprising a step of associating with [[the]] said coaxial superconducting cable a parallel conducting path in such a way that [[the]] a maximum temperature reached by [[the]] said coaxial superconducting cable is lower than [[the]] a minimum temperature between [[the]] a critical temperature of the superconducting material and [[the]] a boiling point of the coolant fluid at [[the]] a minimum working pressure of the fluid.

15. (withdrawn - currently amended) Method for replacing, in an electrical power transmission system, a conventional cable connection with a coaxial superconducting cable connection, comprising the following steps:

[[-]] removing [[the]] said conventional cable;

[[-]] installing [[the]] said coaxial superconducting cable; and

~~characterized in that it additionally comprises the step of~~ increasing [[the]] a reactance of [[the]] said coaxial superconducting cable.

16. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that it additionally comprises the step of~~ further comprising:

[[-]] determining [[the]] a reactance of [[the]] said conventional cable; and

[[-]] increasing the reactance of [[the]] said coaxial superconducting cable in such
a way that the reactance of [[the]] said coaxial superconducting cable is substantially
equal to the reactance of [[the]] said conventional cable.

17. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that~~ wherein the step of increasing the reactance of [[the]] said coaxial
superconducting cable comprises [[the]] a step of connecting an inductive element in
series with [[the]] said coaxial superconducting cable.

18. (withdrawn - currently amended) Method according to Claim 17,
~~characterized in that the~~ wherein said inductive element comprises superconductors.

19. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that it comprises the~~ further comprising a step of associating with [[the]]
said coaxial superconducting cable a parallel conducting path in such a way that [[the]]
a maximum temperature reached by [[the]] said coaxial superconducting cable is lower
than [[the]] a minimum temperature between [[the]] a critical temperature of the
superconducting material and [[the]] a boiling point of the coolant fluid at [[the]] a
minimum working pressure of the fluid.

20. (withdrawn - currently amended) Thermally insulated terminal for
connection between a multiple-phase cable and an electrical installation at ambient
temperature, [[the]] said cable comprising, for each phase, at least one coaxial unit
having a phase superconductor, an interposed layer of electrical insulation and a

coaxial return superconductor, and ~~[[also]]~~ thermal control means for maintaining ~~[[the]]~~ said superconductors of each of ~~[[the]]~~ said coaxial units in ~~[[the]]~~ a superconducting state, ~~[[the]]~~ wherein said terminal ~~being characterized in that it~~ comprises an inductive element connected in series with each phase superconductor.

21. (withdrawn - currently amended) Terminal according to Claim 20, ~~characterized in that it comprises~~ further comprising:

[[-]] at least one casing,

[[-]] cooling means, and

[[-]] a live current lead for each phase superconductor, having a corresponding phase connector for connection to ~~[[the]]~~ said installation at an ambient temperature,

~~[[the]]~~ said current lead being provided with a resistive conductor between the phase superconductor and ~~[[the]]~~ said connector of the current lead, ~~[[the]]~~ areas of connection between ~~[[the]]~~ said resistive conductors and ~~[[the]]~~ said phase superconductors being located inside the casing.

22. (withdrawn - currently amended) Terminal according to Claim 20, ~~characterized in that it comprises~~ further comprising:

[[-]] a single return current lead provided with a single resistive return conductor, with an upper end connected to a return connector for connection to the installation at the ambient temperature; and

[[-]] connecting means made from a superconducting material between ~~[[the]]~~ said return superconductors and ~~[[the]]~~ said single resistive return conductor,

~~[[the]]~~ an area of ~~[[the]]~~ a junction between ~~[[the]]~~ said connecting means being made from a superconducting material and ~~[[the]]~~ said single resistive return conductor,

and at least [[the]] said connecting means between the return superconductors and
[[the]] said single resistive conductor[[,]] being inside the casing and being at a
temperature below [[the]] a critical temperature corresponding to [[the]] a
superconducting state owing to the presence of ~~the said~~ a cooling means.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com